FRIENDS OF MINERALOGY, INC
MIDWEST CHAPTER

AFFILIATTIONS:

THE MINERALOGICAL RECORD
THE MINERALOGICAL SOCIETY OF AMERICA
AMERICAN GEOLOGICAL INSTITUTE
ROCKS & MINERALS MAGAZINE

NEXT MEETING
SYMPOSIUM & FIELD DAY
SATURDAY,SEPTEMBER 5, 2009
MIAMI UNIVERSITY,
OXFORD, OHIO
9:00 AM
SCHEDULE & DETAILS INSIDE

SEPTEMBER - 0CTOBER
2009

FRIENDS OF MINERALOGY, INC
MIDWEST CHAPTER
JOHN BLUE, EDITOR
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FIRST CLASS

FRIENDS OF MINERALOGY
MIDWEST CHAPTER

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AFFILIATIONS:
AMERICAN GEOLOGICAL INSTITUTE
THE MINERALOGICAL RECORD
THE MINERALOGICAL SOCIETY OF AMERICA
ROCKS & MINERALS MAGAZINE

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PURPOSE

Friends of Mineralogy, Inc - Midwest Chapter is organized to promote interest in and knowledge of mineralogy; to advance mineralogical education; to protect and preserve mineral specimens and promote conservation of mineral localities; to futher cooperation between amateur and professional and encourage collection of minerals for educational value; and to support publications about mineralogy and about the programs of kindred organizations.

MINUTES OF MEETING - BLOOMINGTON, INDIANA

The FoM midwest chapter meeting was held Saturday June 27 at 1 pm during the Bloomington,IN rock show. There were 16 members in attendance and I not only chaired the meeting, but acted as secretary taking the minutes.

The program on Gem and Jewelry Appraisal was given by Joseph N. Boyd. It was very interesting and well received by all in attendance.

Following the program, the following gave their report: Len Gritzer gave a brief treasurers report and member status. The club continues to slowly gain members and made all required payments as necessary. It was noted that Dee Slater had recently passed and a donation was made in her name. Nelson Shaffer gave a report on programs and a field symposium which will be further discussed in a moment. John Blue and Ernie Carlson were not in attendance with no report to give. For Ernie, specifically nothing new on any upcoming field trips.

Nelson is planning a field symposium for Sept 5-6 at Miami University of Ohio in Oxford, Ohio. The topic is to be "Meteorite Impact Minerals including Microdiamonds." Prof. John Rakovan and others are to be speakers at this symposium. Watch this newsletter and upcoming emails for this event!

Other old business was then discussed. This included the Salem Quarry fieldtrip where collecting was pretty good. Some nice celestine and calcites in vugs and quartz geodes were found.

New business revolved around the recent Bloomington newspaper (and other newspapers) article on roadside rock/fossil collecting. This discussion could have gone on for hours, but due to severe time constraints, discussion was cut short with more to come in the future. I urge all FoM members to read the full newspaper article. FoM officially discourages unsafe and illegal activities, but a plan may evolve to allow a more "enlightened" point of view at the state level, thus allowing us to safely and legally pursue our hobby. SEE BELOW

The next FoM meeting will, tentatively, be at the Greenfield show in September; date and time to be announced. The meeting was adjourned at 2:05 PM

A POSSIBLE WORKABLE PLAN FOR ROADSIDE ROCK AND FOSSIL COLLECTING

For those who have read the newspaper reports, it should be apparent that INDOT was heavy handed in their approach to roadside rock collectors and those (not our primary concern) shoveling up fallen rock for personal use. It seems they got the state DNR and police agencies to agree with them and may have approached the newspaper to do this article. Little do they realize 2 things; firstly that all activities involve some risk and we (like motorcyclists without helmets) are willing to take the small risks in order to pursue our activities. And secondly that collecting rocks in Indiana brings in considerable tourist dollars. Not only do many state residents collect, but many out of state folks have come to Indiana to collect geodes and fossils for many years.

We all eat and sleep and spend other time and money in the communities where we collect!! So....I believe that if the leaders of all the state rock and fossil clubs get together with club leaders from surrounding cities, we can present a united front with a workable collecting permit plan to the Indiana Department of Tourism. This would work like hunting and fishing permits (which by the way have greater risks of injury and death than roadside rock collecting!). The permits would be yearly, issued by the DNR, and cost about $25 per year. By signing the permit.like fishing and hunting permits.we would agree to rules and conditions like collecting

(Plan For Roadside Collecting, Cont'd)
small amounts for personal collections and non-commercial only, wearing hardhats, no children, no heavy equipment etc etc etc .....whatever we and the state agree on to put in the permit.

We also acknowledge the risks, making future lawsuits unlikely. All the permit money would go to the DNR for their use. In return we would be able to collect legally with the state's blessing and people would, over time, hear about our activities and increase Indiana tourism for the purpose of rock collecting..... I hope all this makes some sense and we can get going on it in the near future!! GOOD HUNTING

Submitted by Bob Harman, President

FIELD SYMPOSIUM

2009 Midwest Chapter of the Friends of Mineralogy Symposium and Field Conference
Microdiamonds and meteorite impact structures
Saturday September 5, Miami University, Oxford, OH

Many people may have seen the recent PBS NOVA program called "Last Extinction". If you have not you can watch it online or check for the next TV broadcast at http://www.pbs.org/wgbh/nova/clovis/ . Scientists propose a radical new idea of what killed off the mammoths and other large animals at the end of the last ice age; a major comet impact. Evidence for this and other impacts includes the presence of microdiamonds in Earth's sediments.

The theme of the 2009 Midwest Chapter of the Friends of Mineralogy Symposium and field conference is "Microdiamonds and meteorite impact structures". The conference will include presentations by several scientists working on different aspects of these topics as well as field trips to the Serpent Mound impact structure and proximal mineral collecting sites in south central Ohio.

The conference, being organized by Nelson Shafer (Indiana Geological Survey) and John Rakovan (Miami University), will be held Saturday, September 5 in the Department of Geology at Miami University, Oxford Ohio. Speakers will include Dr. Ken Tankersley (Department of Anthropology, University of Cincinnati), Dr. Andrew Phelps (Materials Physics Lab, University of Dayton) and Greg Schumacher (Ohio Department of Natural Resources Division of Geological Survey)

Schedule

The meeting will be in the Karl E. Limper Geology Museum, Department of Geology, Miami University. It is located on the first floor (basement) of Shideler Hall, Room 8. Directions can be found at: http://www.cas.muohio.edu/limpermuseum/VisitTheMuseum/index.htm#Directions

Parking at Miami University on weekends is free and does not require a permit. Two parking areas are convenient for the symposium. Bishop circle which is adjacent to Shideler Hall and Cook Field, which is across the street (Rt. 27/Patterson Ave.) from Shideler.

9 – 9:30 AM
Introduction by Nelson Shafer and John Rakovan

9:30 – 10:15
Dr. Ken Tankersley

(Field Symposium, Cont'd)

10: 15 – 11:00
The Physics and chemistry of impact diamonds with examples from Popigai.
Dr. Andrew Phelps

11 – 11:45
The Impact of Ohio's Extraterrestrial Visitor- Geology of the Serpent Mound Disturbance
Greg Schumacher

12 – 12:30 Lunch and Video "The Last Extinction"

12:30 – 1 Visit the Limper Geology Museum

1:00 PM Field Trip: Serpent Mound and Vicinity, OH

FIELD COLLECTING OPPORTUNITIES

The trip to Delphos is on for this Saturday.

We are going to Corydon Stone & Asphalt quarry, Corydon, Indiana, on Saturday, October 3, 8:00 am to 12:00 noon. The group will be limited to the first 25 that respond to me. The address of the quarry is 1100 Quarry Road NW, Corydon IN 47112-9193, and is in Harrison County. The quarry is located 2 miles NW of Corydon, Indiana, which is over 20 miles W of Louisville, KY. Get on I 64 W. Take exit 105 to get on IN 135-N. Drive for 0.5 mile to Quarry Road NW, turn left and drive to quarry.

Rocks – The rocks are Mississippian in age and the mineralization occurs in the Ste. Genevieve Limestone.
Minerals – The quarry is most noted for crystals of pink saddle dolomite from 1 to 2 cm across. These are found at several zones in the quarry. Also present are calcite, fluorite and strontianite. Rarely, millerite in capillary crystals is found (Huizing and Russell, 1986).

On Friday October 2 we are invited to join the Columbus Rock & Mineral Society at the Hanson quarry, Indianapolis, Indiana, to collect pyrite nodules in the New Albany Shale. The pyrite nodules are quite lustrous and highly prized. The Hanson quarry is located at 4200 South Harding Street, Indianapolis IN 46217 in Marion County. We meet at 9:30 am and leave at 2:45 pm. It is located in South Indianapolis off I 465/74. Harding Street is exit 4, turn N and continue to quarry.

Rocks – The nodules occur in the lower part of the tan to gray New Albany Shale of Late Devonian age. They occur above the contact with the underlying North Vernon Limestone.
Minerals – The origin of the pyrite nodules is problematic. The surface of each nodule consists of randomly oriented cubic-octahedral crystals that vary in size from microcrystals up to 3 cm on an edge. The nodules are as large as 8 cm in diameter (Huizing and Russell, 1986).

If you are planning to attend either or both trips please notify me by Monday September 28th in case of a last minute cancellation. If you don't hear from me the trip is on. Keep in mind the Corydon trip will be limited to the first 25 to respond. MSHA certificates are not required for either trip.

(Field Collecting Opportunities, Cont'd)

Reference:
Huizing, T.E., and Russell, R.E., 1986, Indiana minerals: a locality index: Rocks and Minerals, v. 61, p. 136-151.

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NATRON – MUMMY MINERAL

By Dr William Cordua, U of Wisc, River Falls

Ancient Egyptians were famous for there perfection of the art of mummification. A key ingredient in the process is a mineral call natron, whose preservative properties rival those of salt.

Natron is sodium carbonate (NaCO3.10H20) which crystallizes in the monoclinic system. It commonly forms clear, white, yellow or gray crusts of granular or columnar crystals. It dissolves in water and also absorbs water readily, making it an excellent desiccant. Natron is found in quantity naturally in the beds of several Egyptian playa lakes. It forms when late water of a particular composition evaporates, as it would happen periodically in the hot Egyptian climate. Natron does not form from the evaporation of sea water, where most of the sodium present would be tied up as halite (NaCl). Its preservative qualities must have been immediately apparent from its effects on wild life which drowned in those lakes. At several Egyptian localities (Wadi Natrun and Behiera in the Libyan desert and El Kab in Upper Egypt) the natron has accumulated in beds and incrustations several feet thick. This material has been mined and traded from these localities for thousands of years. Egyptian writings as old as the reign of Ramese III (1198-1166 BC) refer to these deposits. There is some evidence that the natron was artificially precipitated by isolating shallow basins of lake water for faster evaporation.

The natron was a preferred material for mummy purification and preservation. Natron is superior to salt as a drying agent because it chemically attacks and destroys grease and fat. It is found not only in tombs and in pits with other discarded embalming materials, but also as nodules and residues in the mummies themselves. There is some debate over the method in which the natron was used. It may have been used in a way similar to the method for the preservation of fish. Dry natron would be sprinkled over the body, perhaps with sawdust, or spread with linen clothes. Other archeologists believe the body was immersed in vats containing a natron solution. Such a wet method would however be odiferous, accelerate putrefaction and thus be counterproductive to the preservation of the body. A dry body would also be more readily bandaged as well as more amendable to the attachment of amulets and other jewelry.

Although mummification has supernatural trappings, its basis is rooted in simple chemistry and processes as mundane as fish preservation. It also is another example of a technology born out of observations of the properties and effects of rare minerals.

References: Lucas, A 1962, Ancient Egypt Materials and Industries, 4th edition, revised by J.R. Harris, London, Edward Arnold Publishers.